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ABSTRACT

A program designed to improve learning through improved teaching competencies, the IOTAH program (Instrument for the Observation of Teaching Activities in Higher Education) is reported. This program for instructional improvement involves three stages: introduction, training, and implementation. The introductory stage can be accomplished through either a special orientation program or a pilot workshop. Participation in an actual IOTAH workshop is an intensive training activity of approximately 27 contact hours designed to develop: an understanding of an acceptable definition of teaching competence, objective observation skills, and skills in data recording and application of the instrument. Workshops also include objectivity training, role playing, interview training, videotape self-analysis, and library study. Implementation of the program at an institution is aided by program staff who are experienced at adapting the program to the needs of the organization. Implementation can be either formal or informal; the programmed approach is recommended. The IOTAH program is based on a national criterion of teaching competence called "The Role of the Instructor in Higher Education," which identifies seven major areas of responsibility of the professional instructor. The criterion uses behavioral terminology in describing teaching performance: 100 behavioral activities categorized by 22 items or scales. There are two types of scales, observation and interview, and data from classroom observation and the interview enable the trained observer and interviewer to assess teaching competence. (SW)

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COMPETENCE - EFFECTIVENESS OF INSTRUCTION IN HIGHER EDUCATION AND HOW TO OBJECTIVELY ASSESS IT AND IMPROVE IT

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The convergence of pressures on higher education from many quarters is causing some of us in education to re-examine every element of the institution, especially the instructional element. If we are to change - improve - the elements of education from within, we need courageous leadership, a systematic plan (short range and long range), to train our faculties in objective assessment, and support in-service improvement of instruction and learning. To say that one can know everything about anything, or anything about everything as might have been stated by educators a hundred years ago, certainly would be absurd today. Even though society has changed dramatically in the last twenty-five years, the basic elements of education have changed very little in the last hundred years. The following paper deals with a program designed to help institutions of higher education change themselves for improved instruction and learning.

INTRODUCTION

While having been called both a "clinical approach to instructional improvement" and a "professional approach to accountability," the IOTAH Program has as its sole objective the improvement of learning through improved teaching competencies. IOTAH is an acronym for the "Instrument for the Observation of Teaching Activities in Higher Education." The Instrument is analytical, objective and specific in assessing teaching activities.

To conceptualize the IOTAH Program it is divided into three stages. These stages are: (1) introducing the Program (orientation), (2) training (workshop) and (3) operational phase (implementation).

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STAGES OF THE IOTAH PROGRAM

Stage One - Introductory

In order to introduce groups of people to the IOTAH Program, Stage One is an "introductory" segment. In this stage an assemblage of individuals (a staff of a department or division, a cadre of interested individuals, an administrative council, an executive committee or improvement committee, etc.) participates in a micro-version of a regular IOTAH workshop. Through a graphic presentation, using large and small group instructional techniques, the IOTAH story is explained.

Depending upon the desired inclusiveness, this orientation to IOTAH will run from three to seven hours. Again dependent upon the completeness of the orientation desired and upon the numbers in the group participating in the activities, the Stage One segment will require the services of from two to ten or more trained IOTAH Consultants.

Another approach for introducing a staff to IOTAH is conducting a pilot workshop where a cross section of teachers and administrators are introduced to a more comprehensive view of IOTAH. In a large university maybe one instructor from each department of division is invited to attend.

Through the medium of Stage One, the participant will learn not only of Stage Two and Three, but he will also discover that IOTAH involves:

1. A national criterion of teaching competence. (THE ROLE OF THE INSTRUCTOR IN HIGHER EDUCATION).
2. A local interpretation of the criterion of teaching competence.
3. A training program, both film and live, to develop abilities to observe and record data related to classroom activities.
4. Practice in the use of interview techniques.
5. Development of the ability to apply collected data to the Instrument for the Observation of Teaching Activities for the purpose of the assessment of teaching competence.
6. Development of the ability to use the IOTAH for self-assessment.

7. Development of staff-administrator teamwork procedures for the improvement of instruction.

In adopting the IOTAH Program an organization should consider the many attributes and potentials that the program offers; obtain a consensus commitment from staff and administrators for the program; develop specific short and long term goals to insure maximum outcomes from the program.

Stage Two - Training

Organizations interested in pursuing the IOTAH Program, a decision usually arrived at after someone's participation in Stage One, then become involved in the second part of the IOTAH Program. Stage Two involves the participation of a number of individuals of an organization in an intensive training program. This stage is commonly known as the IOTAH WORKSHOP. This workshop of approximately 27 contact hours* conducted by an IOTAH Director and Consultants, includes activities that require the participant to become familiar with the principal factors of the IOTAH Program. These factors deal with developing an understanding of an acceptable definition of teaching competence, developing objective observation skills through film training and actual classroom observations, developing skills in data recording and in making accurate application of the Instrument for the Observation of Teaching Activities in Higher Education. In addition, workshops involve objectivity training, role playing, interview training, video tape self-analysis, library study, instructor-observer conferences, objective writing, etc. IOTAH workshops are designed for "doing" - not for "listening."

Also included in Phase Two is participation in activities that require individuals to consider how the IOTAH procedures can be used by themselves, and later by their organization.

*Workshops are scheduled over a three or four day period including weekends, if desired. The IOTAH Program is individually prescribed for each organization; hence, the utmost flexibility in all phases of the program are possible and encouraged.

Stage Three - Implementation

Perhaps the most vital segment of the IOTAH Program is that part dealing with an organization's utilization of IOTAH. The implementation phase is undertaken after an organization has benefited from a sufficient number of workshops so that it has been able to make a commitment, both in time and funds, to employ IOTAH across the organization or in large parts of it. Up to this point professional growth has been obtained mostly on the part of individuals who have attended workshops.

Through the implementation phase of the IOTAH Program, highly trained personnel from the Center for the Improvement of Instruction and Learning work with the organization in developing an individualized application of IOTAH to the needs of the organization. Acting as a catalytic agent, CIIL staff help the organization plan how it can obtain the most benefit from IOTAH. Procedures for utilization of the program are developed cooperatively, additional training of the organization's staff is given, guidelines are established for implementing IOTAH, and an operational program benefiting all in the organization is formulated.

At all times trained CIIL staff personnel are available, by phone or in person, for consultation. Professional growth programs are too important to be undertaken and then left to falter without the proper long term assistance. Stage Three of the IOTAH Program offers continuing assistance as needed by the participating organization using IOTAH.

THE IOTAH PROGRAM SCHEMATA

Figure 1 on the next page presents a graphic view of the various facets of the IOTAH Program. Here in "flow chart" style are the various stages of the IOTAH Program laid out for detailed analysis. IOTAH is a "Planned Program of Instructional Improvement."

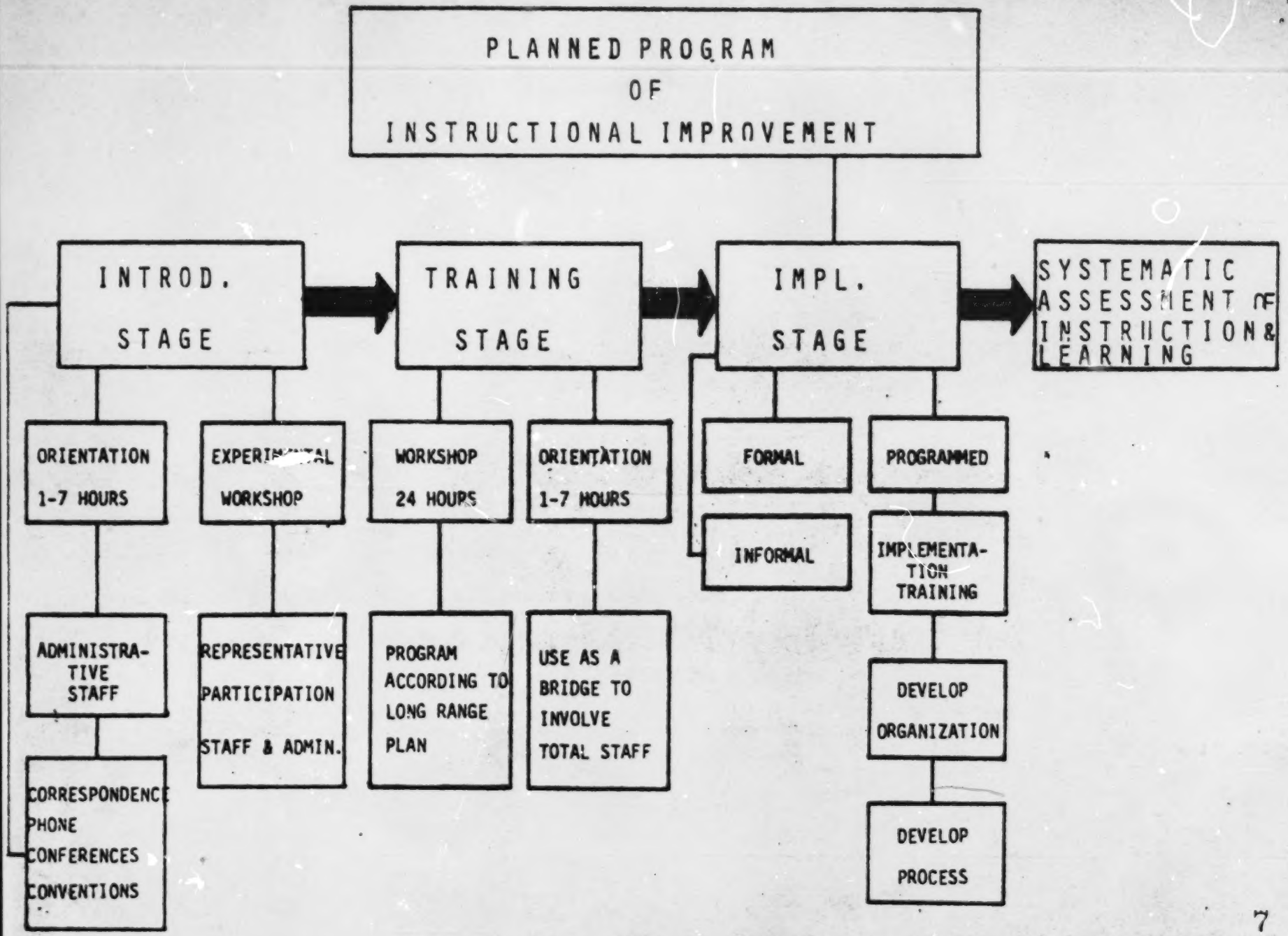
PLANNED PROGRAM
OF
INSTRUCTIONAL IMPROVEMENT
INTROD. STAGE
TRAINING STAGE
IMPL. STAGE
SYSTEMATIC ASSESSMENT OF INSTRUCTION & LEARNING
ORIENTATION 1-7 HOURS
EXPERIMENTAL WORKSHOP
WORKSHOP 24 HOURS
ORIENTATION 1-7 HOURS
FORMAL
PROGRAMMED
INFORMAL
IMPLEMENTATION TRAINING
ADMINISTRATIVE STAFF
REPRESENTATIVE PARTICIPATION STAFF & ADMIN.
PROGRAM ACCORDING TO LONG RANGE PLAN
USE AS A BRIDGE TO INVOLVE TOTAL STAFF
DEVELOP ORGANIZATION
CORRESPONDENCE PHONE CONFERENCES CONVENTIONS
DEVELOP PROCESS

Figure I

One sees from looking at the Introductory Stage that the aims of this stage of the program can be accomplished through either a special orientation program or a regular workshop which would serve as a pilot. The orientation activity would be for the faculty and administrative personnel ranging from a broad segment to all personnel depending on the size of the institution.

The Training Stage involves one or more workshops in order to develop that which is so badly needed in assessment and developmental programs--trained local staff. These workshops are planned to fit the requirements of the long term goals of the organization and are tailored as a result of previous IOTAH activities. Each workshop is individually structured to fit the needs of the sponsoring organization. When an organization is contemplating the use of the IOTAH procedures department or university wide, it is advisable to sponsor an "orientation" program for the total staff of the department or college, depending on size. This will be the explanatory bridge to all those involved or to be involved.

The Implementation Stage of the IOTAH Program can be either formal or informal as far as the local organization is concerned. In the former the trained individuals are expected to utilize the IOTAH processes on their own initiative. In a formal style the trained personnel of the organization establish simple plans on how to utilize the IOTAH techniques. Where the local organization can possibly accomplish it, the programmed approach to implementation is recommended. In this facet the services of CIIL personnel are engaged in assisting the local organization in providing advanced observation and interview training, as well as training in developing the local faculty and administrative leadership to implement a planned instructional improvement program, and in refining the local process.

THE CRITERION

It is axiomatic that before something can be assessed it needs to be defined. Hence, before the teaching activities can be analyzed they must be defined. The IOTAH is based upon a commonly and broadly accepted definition of teaching. This definition is THE ROLE OF THE INSTRUCTOR IN HIGHER EDUCATION. This definition identifies seven major areas of responsibility of the professional instructor. The specific statements embodying the definition have drawn upon the prior descriptive materials known as the "California definition." The definition delineates seven areas of competence in teaching. One of the unique aspects of this definition is its use of behavioral terminology in describing teaching performance.

THE ROLE OF THE INSTRUCTOR IN HIGHER EDUCATION defines the professional task of the Instructor in our society and as such becomes an acceptable basis for the development of evaluative instruments and procedures to assess the competence of instructors. It identifies seven major areas of responsibility of the professional instructors. These areas are subdivided into approximately 100 behavioral activities representing the total task of the instructor in a dynamic society.

The definition covers not only the instructor's performance in the classroom but includes also activities and responsibilities outside the classroom which are a part of his/her total professional task. This definition has been widely used in a number of universities. It gives promise of becoming even more widely used as a criterion of teaching competence.

THE INSTRUMENT FOR THE OBSERVATION OF TEACHING ACTIVITIES

THE INSTRUMENT FOR THE OBSERVATION OF TEACHING ACTIVITIES IN HIGHER EDUCATION was developed with a broad spectrum of input from student, faculty, and

administration in a wide range of disciplines. It is based upon the criterion THE ROLE OF THE INSTRUCTOR IN HIGHER EDUCATION. The 100 behavioral activities of the criterion have been reflected by 22 items known as "scales." There are two types of "scales," - observation and interview.

The two types of scales, observation and interview, are titled by these terms because of the major sources of information with respect to each. That is, data obtained for the observation scales are secured through observation of the teaching situation in the classroom.

There are 9 observation scales and 13 interview scales. Data for the interview scales is secured through the structured interview.

The title of each scale making up the instrument represents a factor essential in teaching and learning which is either observable in the classroom or is obtainable by interview with the instructor.

Each scale is divided into five behavioral levels, or levels of competence, relating to that scale. The levels are intended to spread from the highest, or most sought after level of competence, to the lowest acceptable level.

Level five represents the optimum reflection of the definition with regard to the particular scale. It assumes professional competence in the classroom equivalent to expertness in performance. It would find all factors, environmental and professional, operating at a maximum level of performance. When placed under each scale heading in the instrument, the levels are scrambled to enhance objectivity on the part of the trained observer in using the instrument.

Data resulting from classroom observation and the interview provide the basis for the trained observer and interviewer to assess the teaching competence - of strength and weakness - and this identifies the factors where improvement of instruction can be accomplished.

The IOTAH is strongly weighted toward self-improvement and thus the activities might actually be self-motivated by the instructor since the IOTAH instrument is one which encourages self-evaluation by the instructor. The primary purpose of the instrument is to guide the observer in collecting specific, objective information on which a valid and reliable assessment may be based. This requirement calls for observation directed by specific, unambiguous statements in order that the evaluation may meet the statistical requirements for consistency, discriminative ability, and other features expected in measurement.

The IOTAH has proven its reliability through tested practice by trained observers. The inter-rater correlation of observations by multiple trained observers (working independently) is around 90%.

SUMMARY

The IOTAH Program has all of the ingredients necessary to provide an organization with an effective method of improving instruction and learning. Starting with a definition and working through a highly developed instrumentation, providing a means and method of training personnel in its use, and being available and able to provide local assistance through implementation procedures, the IOTAH Program is the ideal method of achieving instruction improvement through a positive professional staff development approach which is acceptable to both faculty and administrators.